

SEQUENCE LISTING

<110> Chugai Seiyaku Kabushiki Kaisha, 5001, Iwamoto et

A
<120> Cell Calcification Suppressing Proteins and Genes of
the Proteins

<130> chugai seiyaku kabushiki kaisha 5001

<140> 08/878,177

<141> 1997-06-18

<160> 7

<170> PatentIn Ver. 2.0

<210> 1

<211> 1447

<212> DNA

<213> C-11 gene, c-erg gene w/ deletion, chicken DNA

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<212> PRT

<213> protein sequence from C-11 gene

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Ser Leu Phe Glu Cys Ala Tyr Gly Ser Pro His Leu Ala Lys Thr Glu
20 25 30

Met Thr Ala Ser Ser Ser Glu Tyr Gly Gln Thr Ser Lys Met Ser
35 40 45

Pro Arg Val Pro Gln Gln Asp Trp Leu Ser Gln Pro Pro Ala Arg Val
50 55 60

Thr Ile Lys Met Glu Cys Asn Pro Asn Gln Val Asn Gly Ser Arg Asn
65 70 75 80

Ser Pro Asp Asp Cys Ser Val Ala Lys Gly Gly Lys Met Val Ser Ser
85 90 95

Ser Asp Asn Val Gly Met Asn Tyr Gly Ser Tyr Met Glu Glu Lys His
100 105 110

Ile Pro Pro Pro Asn Met Thr Thr Asn Glu Arg Arg Val Ile Val Pro
115 120 125

Ala Asp Pro Thr Leu Trp Ser Thr Asp His Val Arg Gln Trp Leu Glu
130 135 140

Trp Ala Val Lys Glu Tyr Gly Leu Pro Asp Val Asp Ile Leu Leu Phe
145 150 155 160

Gln Asn Ile Asp Gly Lys Glu Leu Cys Lys Met Thr Lys Asp Asp Phe
165 170 175

Gln Arg Leu Thr Pro Ser Tyr Asn Ala Asp Ile Leu Leu Ser His Leu
180 185 190

His Tyr Leu Arg Glu Arg Gly Ala Thr Phe Ile Phe Pro Asn Thr Ser
195 200 205

Val Tyr Pro Glu Ala Thr Gln Arg Ile Thr Thr Arg Pro Asp Leu Pro
210 215 220

Tyr Glu Gln Ala Arg Arg Ser Ala Trp Thr Ser His Ser His Pro Thr
225 230 235 240

Gln Ser Lys Ala Thr Gln Pro Ser Ser Ser Thr Val Pro Lys Thr Glu
245 250 255

Asp Gln Arg Pro Gln Leu Asp Pro Tyr Gln Ile Leu Gly Pro Thr Ser
260 265 270

Ser Arg Leu Ala Asn Pro Gly Ser Gly Gln Ile Gln Leu Trp Gln Phe
275 280 285

Leu Leu Glu Leu Leu Ser Asp Ser Ser Asn Ser Asn Cys Ile Thr Trp
290 295 300

Glu Gly Thr Asn Gly Glu Phe Lys Met Thr Asp Pro Asp Glu Val Ala
305 310 315 320

Arg Arg Trp Gly Glu Arg Lys Ser Lys Pro Asn Met Asn Tyr Asp Lys
325 330 335

Leu Ser Arg Ala Leu Arg Tyr Tyr Asp Lys Asn Ile Met Thr Lys
340 345 350

Val His Gly Lys Arg Tyr Ala Tyr Lys Phe Asp Phe His Gly Ile Ala
355 360 365

Gln Ala Leu Gln Pro His Pro Pro Glu Ser Ser Met Tyr Lys Tyr Pro
370 375 380

Ser Asp Leu Pro Tyr Met Ser Ser Tyr His Ala His Pro Gln Lys Met
385 390 395 400

Asn Phe Val Ala Pro His Pro Pro Ala Leu Pro Val Thr Ser Ser Ser
405 410 415

Phe Phe Ala Ala Pro Asn Pro Tyr Trp Asn Ser Pro Thr Gly Gly Ile
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Tyr Pro Asn Thr Arg Leu Pro Ala Ala His Met Pro Ser His Leu Gly
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Thr Tyr Tyr
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<210> 3
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<212> DNA

<213> c-erg gene, chicken DNA

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aatatggca aacatcaaag atgagccgc gcgttccccca gcaggactgg ttatcacagc 240
ccccggccag agttaaccatt aagatggagt gtaacccaaa ccaggttaat gggtaagga 300
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<210> 4

<211> 478

<212> PRT

<213> protein sequence from c-erg gene

<400> 4

Met Ala Ser Thr Ile Lys Glu Ala Leu Ser Val Val Ser Glu Asp Gln
1 5 10 15

Ser Leu Phe Glu Cys Ala Tyr Gly Ser Pro His Leu Ala Lys Thr Glu
20 25 30

Met Thr Ala Ser Ser Ser Glu Tyr Gly Gln Thr Ser Lys Met Ser
35 40 45

Pro Arg Val Pro Gln Gln Asp Trp Leu Ser Gln Pro Pro Ala Arg Val
50 55 60

Thr Ile Lys Met Glu Cys Asn Pro Asn Gln Val Asn Gly Ser Arg Asn
65 70 75 80

Ser Pro Asp Asp Cys Ser Val Ala Lys Gly Gly Lys Met Val Ser Ser
85 90 95

Ser Asp Asn Val Gly Met Asn Tyr Gly Ser Tyr Met Glu Glu Lys His
100 105 110

Ile Pro Pro Pro Asn Met Thr Thr Asn Glu Arg Arg Val Ile Val Pro
115 120 125

Ala Asp Pro Thr Leu Trp Ser Thr Asp His Val Arg Gln Trp Leu Glu
130 135 140

Trp Ala Val Lys Glu Tyr Gly Leu Pro Asp Val Asp Ile Leu Leu Phe
145 150 155 160

Gln Asn Ile Asp Gly Lys Glu Leu Cys Lys Met Thr Lys Asp Asp Phe
165 170 175

Gln Arg Leu Thr Pro Ser Tyr Asn Ala Asp Ile Leu Leu Ser His Leu
180 185 190

His Tyr Leu Arg Glu Thr Pro Leu Pro His Leu Thr Ser Asp Asp Val
195 200 205

Asp Lys Ala Leu Gln Asn Ser Pro Arg Leu Met His Ala Arg Asn Thr
210 215 220

Gly Gly Ala Thr Phe Ile Phe Pro Asn Thr Ser Val Tyr Pro Glu Ala
225 230 235 240

Thr Gln Arg Ile Thr Thr Arg Pro Asp Leu Pro Tyr Glu Gln Ala Arg
245 250 255

Arg Ser Ala Trp Thr Ser His Ser His Pro Thr Gln Ser Lys Ala Thr
260 265 270

Gln Pro Ser Ser Ser Thr Val Pro Lys Thr Glu Asp Gln Arg Pro Gln
275 280 285

Leu Asp Pro Tyr Gln Ile Leu Gly Pro Thr Ser Ser Arg Leu Ala Asn
290 295 300

Pro Gly Ser Gly Gln Ile Gln Leu Trp Gln Phe Leu Leu Glu Leu Leu
305 310 315 320

Ser Asp Ser Ser Asn Ser Cys Ile Thr Trp Glu Gly Thr Asn Gly
325 330 335

Glu Phe Lys Met Thr Asp Pro Asp Glu Val Ala Arg Arg Trp Gly Glu
340 345 350

Arg Lys Ser Lys Pro Asn Met Asn Tyr Asp Lys Leu Ser Arg Ala Leu
355 360 365

Arg Tyr Tyr Tyr Asp Lys Asn Ile Met Thr Lys Val His Pro Pro Glu
370 375 380

Ser Ser Met Tyr Lys Tyr Pro Ser Asp Leu Pro Tyr Met Ser Ser Tyr
385 390 395 400

His Gly Lys Arg Tyr Ala Tyr Lys Phe Asp Phe His Gly Ile Ala Gln
405 410 415

Ala Leu Gln Pro His Ala His Pro Gln Lys Met Asn Phe Val Ala Pro
420 425 430

His Pro Pro Ala Leu Pro Val Thr Ser Ser Ser Phe Phe Ala Ala Pro
435 440 445

Asn Pro Tyr Trp Asn Ser Pro Thr Gly Gly Ile Tyr Pro Asn Thr Arg
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Leu Pro Ala Ala His Met Pro Ser His Leu Gly Thr Tyr Tyr
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<212> DNA
<213> primer for isolation of C-11 and c-erg genes

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25

C1